Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

DMMT3906

PNP Small Signal Transistors

Features

- Epitaxial Planar Die Construction
- Ultra-small surface mount package
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking: K3Q

Maximum Ratings

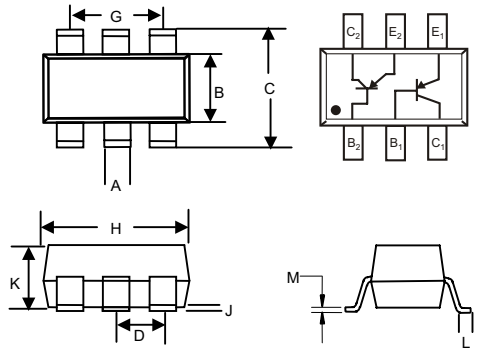
Symbol	Parameter	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{CBO}	Collector-Base Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current-Continuous (1)	-200	mA
P_C	Power dissipation (1)	200	mW
R_{THJA}	Thermal Resistance	625	°C/W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS (2)				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I_C=-1.0mAdc, I_B=0)	-40	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=-10uAdc, I_E=0)	-40	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage (I_E=-10uAdc, I_C=0)	-5.0	---	Vdc
I_{CEX}	Collector-Base Cutoff Current (V_{CE}=-30Vdc, $V_{EB(OFF)}$=-3.0Vdc)	---	-50	nAdc
I_{BL}	Emitter-Base Cutoff Current (V_{CE}=-30Vdc, $V_{EB(OFF)}$=-3.0Vdc)	---	-50	nAdc
ON CHARACTERISTICS (2)				
h_{FE}	DC Current Gain (I_C=-100uAdc, V_{CE}=-1.0Vdc) (I_C=-1.0mAdc, V_{CE}=-1.0Vdc) (I_C=-10mAdc, V_{CE}=-1.0Vdc) (I_C=-50mAdc, V_{CE}=-1.0Vdc) (I_C=-100mAdc, V_{CE}=-1.0Vdc)	 60 80 100 60 30	 --- --- 300 --- ---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=-10mAdc, I_B=-1.0mAdc) (I_C=-50mAdc, I_B=-5.0mAdc)	 ---	 -0.25 -0.40	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=-10mAdc, I_B=-1.0mAdc) (I_C=-50mAdc, I_B=-5.0mAdc)	 -0.65 ---	 -0.85 -0.95	Vdc

Note: 1. Valid provided that terminals are kept at ambient temperature.

SOT-363



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

SMALL SIGNAL CHARACTERISTICS

C_{obo}	Output Capacitance (V_{CB}=-5.0Vdc, f=1.0MHz, I_E=0)	---	4.5	pF
f_T	Current Gain-Bandwidth Product (V_{CE}=-20Vdc, I_C=-10mAdc, f=100MHz)	250	---	MHz

SWITCHING CHARACTERISTICS

t_d	Delay Time	V_{CC}=-3.0Vdc, I_C=-10mAdc, VBE(off)=0.5Vdc, I_{B1}=-1.0mAdc	---	35	ns
t_r	Rise Time		---	35	ns
t_s	Storage Time	V_{CC}=-3.0Vdc, I_C=-10mAdc, I_{B1}=I_{B2}=-1.0mAdc	---	225	ns
t_f	Fall Time		---	75	ns

DMMT3906

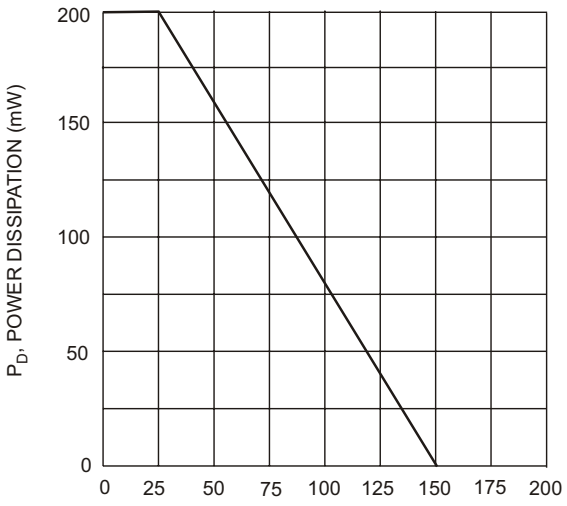


Fig. 1, Max Power Dissipation vs Ambient Temperature

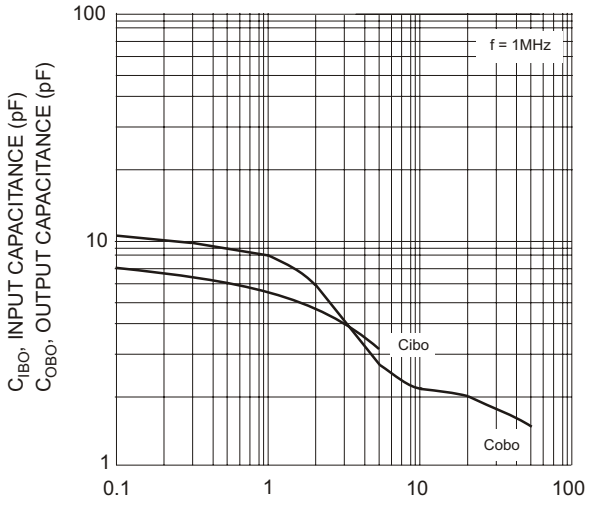


Fig. 2, Input and Output Capacitance vs. Collector-Base Voltage

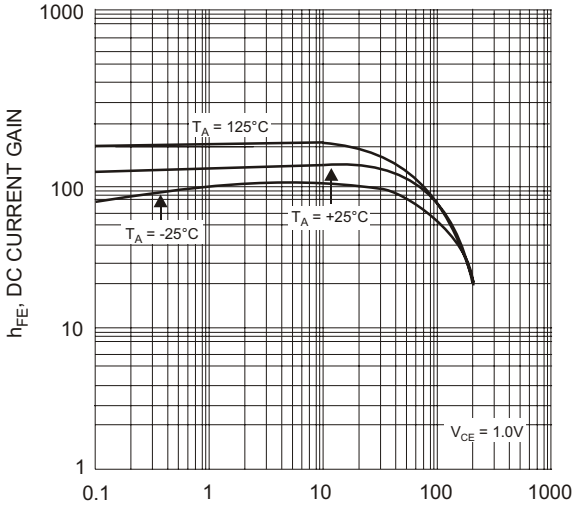


Fig. 3, Typical DC Current Gain vs Collector Current

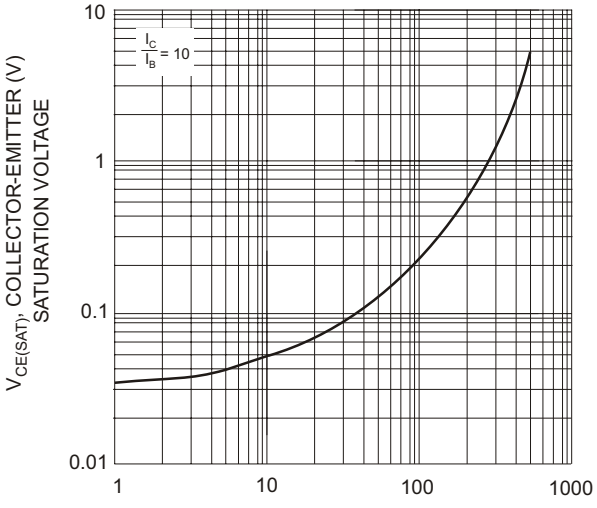


Fig. 4, Typical Collector-Emitter Saturation Voltage vs. Collector Current

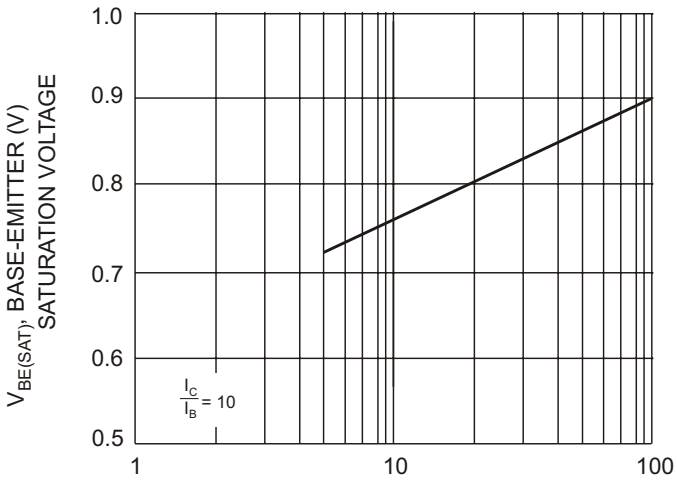


Fig. 5, Typical Base-Emitter Saturation Voltage vs. Collector Current

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel;3Kpcs/Reel

IMPORTANT NOTICE
Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp .*** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp .*** and all the companies whose products are represented on our website, harmless against all damages.
LIFE SUPPORT
MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.
CUSTOMER AWARENESS
Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.